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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,366	09/22/2003	Takehiro Matsuda	040894-5959	4898

55694 7590 03/29/2006

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EXAMINER

DAVIS, DAVID DONALD

ART UNIT PAPER NUMBER

2627

DATE MAILED: 03/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/665,366	MATSUDA, TAKEHIRO	
	<b>Examiner</b>	<b>Art Unit</b>	
	David D. Davis	2652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Takashima (US 4,643,522). As per claim 1, Takashima shows in figure 4, for example, an optical pickup apparatus including an object lens 26 arranged to be opposed to an optical disk; a bobbin 22 configured to support the object lens 26 and an elastic member 25 configured to support the bobbin 22 in a cantilevered manner.

Also shown in figure 4 is a fixing section 22a, 22b, 22c & 22d attached to one end of the elastic member 25A -25D and a pair of coil 28A, 28B, 29A & 29B disposed on the bobbin 22. Each of the coils are disposed at 180 degrees symmetric position with respect to a centroid of a placement face of the object lens 26 in the bobbin 22, and wherein each of the coils are disposed is disposed in a different plane.

As per claim 2, figure 4 of Takashima shows the elastic member 25 includes four or more longitudinal elastic members. As per claim 3, the pair of coil includes a plurality of pairs of coil. As per claim 4, Takashima also shows in figure 4 electric power such that the temperature and the heat flow rate at the point at which the line connecting an optical axis of the object lens 26 and a center of one of the coils crosses the outer margin of the object lens 26 become equal to

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those at the point at which the line connecting the optical axis of the object lens 26 and the center of another coil crosses the outer margin of the object lens 26.

As per claim 5, Takashima shows in figure 4 a symmetrical axis of the pair of coil matches an optical axis of the object lens 26. As per claim 6, figure 4 of Takashima shows each of the coils of the pair are spaced from each other at the same distance with respect to an optical axis of the object lens 26. As per claim 7, Takashima discloses in column 3, lines 39-56 and column 4, lines 11-20 that the pair of coils include either a pair of focus coil or a pair of tracking coil. As per claim 8, Takashima shows in figure 4 that each of the coils of the pair are connected in series.

As per claim 9, Takashima shows in figure 4 that the bobbin 22 includes four or more even numbers of side surfaces with the plurality of pairs of coil including either a pair of focus coil or a pair of tracking coil. See column 3, lines 39-56 and column 4, lines 11-20. The plurality of pairs of coil are arranged in a manner that each of the focus coil and the tracking coil are disposed alternately on each of the side surfaces. As per claim 10, Takashima discloses in column 3, lines 39-56 and column 4, lines 11-35 that a first drive current is provided to either of the focus coils and the tracking coils, and a second drive current is provided to the other of the focus coils and the tracking coils. During the time first drive current is provided a predetermined current is added to the second drive current.

As per claim 11, Takashima shows in figure 4 an optical pickup apparatus having an object lens 26 arranged to be opposed to an optical disk and a bobbin 22 configured to support the object lens 26. Figure 4 also shows a first coil 28A and a second coil 29A disposed on a first

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side surface of the bobbin 22 and a third coil 28B and a fourth coil 29B disposed on a second side surface, which is opposed to the first side surface, of the bobbin 22. The first coil 28A and the third coil 28B are disposed at a position being symmetric with respect to an optical axis of the object lens 26 and are electrically connected to each other. The second coil 29A and the fourth coil 29B are disposed at a position being symmetric with respect to an optical axis of the object lens 26 and are electrically connected to each other.

As per claim 12, Takashima shows in figure 4 the first coil 28A and the third coil 28B each including either of a focus coil or a tracking coil. The second coil 29A and the fourth coil 29B each include the other of the focus coil or the tracking coil. See column 3, lines 39-56 and column 4, lines 11-20. As per claim 13, Takashima discloses in column 3, lines 39-56 and column 4, lines 11-35 a first drive current provided to either of the focus coils and the tracking coils, and a second drive current is provided to the other of the focus coils and the tracking coils. During the time the first drive current is provided a predetermined current is added to the second drive current. As per claim 14, Takashima shows in figure 4 elastic member 25 configured to support the bobbin 22 in a suspending manner and a fixing section 22a, 22b, 22c & 22d attached to one end of the elastic member 25.

### ***Response to Arguments***

3. Applicant's arguments filed January 3, 2006 have been fully considered but they are not persuasive. Applicant asserts in the paragraph bridging pages 6 and 7 "that Takashima does not teach or suggest at least the feature of an elastic member that is configured to support a bobbin in a cantilevered manner, as recited in claim 1". It is unclear how Takashima does not teach an

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elastic member configured to support a bobbin in a cantilevered manner. As stated supra, Takashima shows in figures 4 and 5 bobbin 22. Applicant states that “**One end** of each of the coil spring 25A and 25D is **fixed** at a corresponding one of the mounted projections 22a to 22d”. Emphasis added. The term “cantilevered: is defined as “A projecting structure, such as a beam, that is supported at one end and carries a load at the other end or along its length”, as defined by *The American Heritage® Dictionary of the English Language, Fourth Edition*. Applicant’s interpretation of Takashima, which is in agreement with the interpretation provided supra, makes it clear that Takashima does teach an elastic member configured to support a bobbin in a cantilevered manner. As a result, it is unclear as to why applicant makes a contradictory conclusionary statement in the ultimate line of the paragraph bridging pages 6 and 7.

In the paragraph bridging pages 7 and 8, applicant asserts “that Takashima does not teach or suggest at least the first coil and the third coil are disposed at a position symmetrical with respect to an optical axis of the object lens. Figure 5 not only clearly shows the elastic member in a cantilevered manner, it also clearly shows that the coils are disposed at a position symmetrical with respect to an optical axis (A, y, x) of the object lens because figure 5 is a sectional view along axis x. Moreover, figure 5 shows symmetry contrary to applicant’s assertion.

Applicant also asserts that Takashima does not teach or suggest the coils electrically connected to each other. The coils of Takashima have the same source of power, and applicant also supports that the coils are electrically connected as evidence by the statement in the paragraph bridging pages 7 and 8 which applicant’s maintain that the coils are for linearly driving the objective lens.

***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

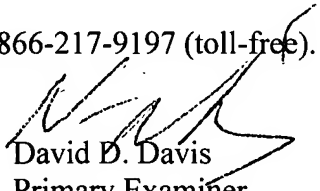
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Davis whose telephone number is 571-272-7572. The examiner can normally be reached on Monday thru Friday between 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne D. Bost can be reached on 571-272-7023. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David D. Davis  
Primary Examiner  
Art Unit 2652

ddd